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10/568,989	02/21/2006	Armin Pieroth	65999-0010	3597
10291	7590	11/15/2007	EXAMINER	
RADER, FISHMAN & GRAUER PLLC			MISA, JOAN D	
39533 WOODWARD AVENUE				
SUITE 140			ART UNIT	PAPER NUMBER
BLOOMFIELD HILLS, MI 48304-0610			4155	
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			11/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/568,989	PIEROTH ET AL.
	Examiner	Art Unit
	Joan D. Misa	4155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 and 18-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 and 18-34 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/21/2006, 7/19/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner notes that claims 2 through 17 have been cancelled in the preliminary amendment filed 06/08/2006.

Claim Objections

2. Claims 21 and 24 are objected to because of the following informalities:

Regarding claim 21, the line that begins as "made in the at least one cylinder" is awkward phrasing.

Regarding claim 24, the phrase that begins with "against which pressure springs..." is awkward and unclear.

For examination purposes, please rewrite the phrases.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. **Claim 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claim 22, the term "poorly wettable surface" is a relative term which renders the claim indefinite. The term "poorly wettable surface" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite

degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Regarding claim 24, the disclosure specifies two types of cylinders, one of which is driven by a motor and the other of which is not driven by a motor. It is unclear as to which of the two cylinders is denoted by "the cylinder" in line 3.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 18, 27, 28, 30, 31, 32, 33, 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Pellenc et al. (WO 01/87047 A1).**

Regarding claim 1, Pellenc et al. discloses a leaf-stripping device comprising "a suction blower (Fig. 19, "suction fan" 47 driven by "motor" M5) and leaf-stripping tools (Fig. 17, 1) arranged in front of the suction blower, the leaf-stripping tools including two rotatable cylinders ("drums" 42 and 2) arranged substantially parallel to each other..." In regards to the phrase "... at least one of the rotatable cylinders (42) being coupled to a drive motor (M4)," Pellenc et al. states that a front drum (42) is driven in rotation by a motor (M4) and a track (41) ensures that the rotation of the front drum (42) is transmitted to the second drum (2), thus illustrating that only the front drum (42) is coupled to a drive motor (Pg. 22, lines 3-10).

However, since the applicant clearly states in claim 1 that “at least one of the [two] rotatable cylinders [is] coupled to a drive motor,” the examiner notes that both cylinders could essentially be coupled to a drive motor. For the purpose of this examination, in limitations where the cylinders are distinguished by whether or not they are driven by a motor (i.e. claim 22 “wherein the driven cylinder...” or claim 23 “... wherein one of the cylinders is not coupled to the motor...”), the examiner will presume that the limitations could essentially apply to either cylinders given that both cylinders are coupled to a drive motor.

Regarding claim 18, Pellenc et al. discloses the leaf-stripping device of claim 1 above as shown in Figure 17. The examiner notes that if a leaf-stripping device contains a suction device (Fig. 19, 47 driven by M5) and a “grid-type guide track” (Fig. 17, 41) around the cylinders, it is structurally capable of sucking and separating foliage from a plant, as well as protecting the fruits of the plant so as not to damage the fruits, therefore meeting the limitation of claim 18.

Regarding claim 27, Pellenc et al. discloses the leaf-stripping device of claim 1 “wherein at least one of the cylinders has a foliage stripper (Fig. 19 and 28, “helical cutter bar” 48 combined with “back blade” 53) extending over its length”

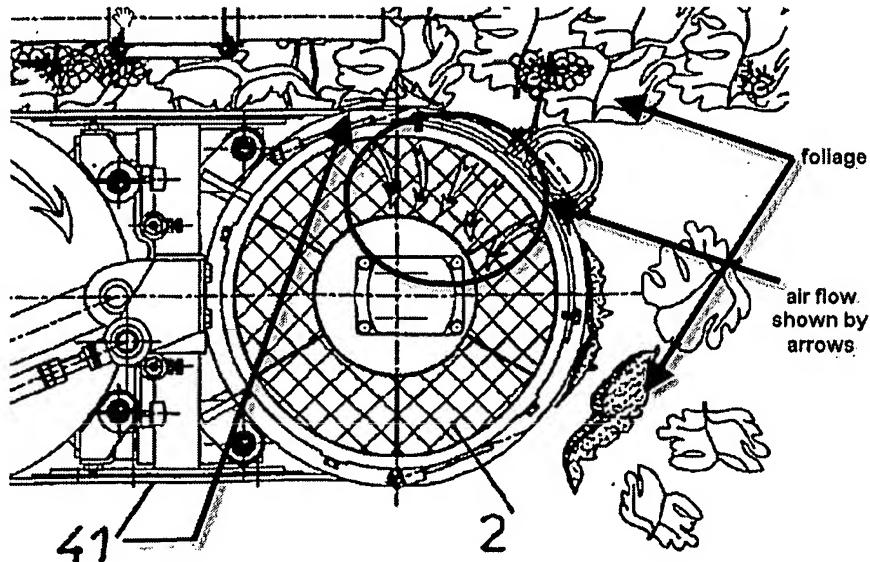
Regarding claim 28, Pellenc et al. discloses the leaf-stripping device of claim 1 “wherein the two cylinders are aligned substantially vertically (Fig. 19 shows both “drums” 42 and 2 aligned vertically) and are...” In regards to the cylinders being “arranged in a common flow channel with the suction blower”, the examiner views that the suction of air caused by the suction device (M5 and 47) of Pellenc concurrently

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flows through both drums (42 and 2) and up towards the suction device thus meeting the limitation of a common flow channel.

Regarding claim 30, Pellenc et al. discloses the leaf stripping device of claim 18, "wherein the two cylinders are spanned partially by a cover plate (Fig. 17, "grid-type guide track" 41 wrapped around "drums" 2 and 42) arranged on a side facing the foliage (shown in Fig. 28 and 30) that has a cutout with an entry incline for the foliage (Fig. 17, holes on track 41)."

Regarding claim 31, the examiner views a flow channel as the path of airflow caused by the suction device. Pellenc et al discloses the leaf-stripping device of claim 30, "wherein the cover plate (as set forth above in claim 30) is fastened to the flow channel on a side facing the foliage." Referring to Figure 30 below, the airflow is shown passing through track (41) and drum (2) from the side facing the foliage.



Partially reproduced Figure 30 of WO 01/87047 A1 (View looking down on drum)

Regarding claim 32, Pellenc et al. discloses in Figure 18 the leaf-stripping device of claim 1, "further comprising a plurality of pairs of cylinders (42 and 2), arranged one behind the other."

Regarding claim 33, Pellenc et al. discloses the leaf-stripping device of claim 1, "comprising means for mounting the device on the front of a vehicle" (Pg. 20, lines 27-28")

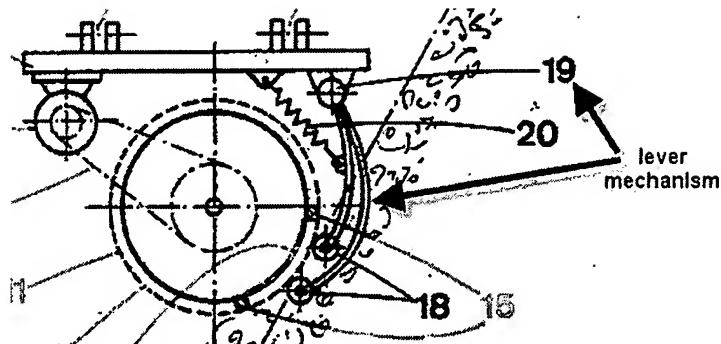
Regarding claim 34, Pellenc et al. also discloses the leaf-stripping device of claim 1 "wherein the vehicle is a tractor" (Pg. 20, lines 28-29).

7. Claims 1, 23, 24, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Bou (FR 2417932 A1).

Regarding claim 1, Bou discloses a leaf-stripping device comprising "a suction blower (Fig. 1, 6) and leaf-stripping tools arranged in front of the suction blower, the leaf-stripping tools including two rotatable cylinders (Fig. 2, 11 and 18) arranged substantially parallel to each other, at least one of the rotatable cylinders (11) being coupled to a drive motor (7)."

Regarding claim 23, Bou discloses the leaf-stripping device of claim 1 "wherein one of the cylinders (18) is not coupled to the motor (7) and is spring-loaded (20) against the other of the cylinders (11)"

Regarding claim 24, Bou discloses the leaf-stripping device of claim 23 "wherein the cylinder (18) that is not coupled to the motor is supported in a lever mechanism (shown below) against which pressure springs (20) for the cylinder bear pressure."



Reproduced Figure 2 of FR 2417932 A1.

Regarding claim 29, Bou discloses the leaf-stripping device of claims 1 and 23 "wherein a diameter of the cylinder (Fig. 2, 18) that is not coupled to the motor (7) is made smaller than the diameter of the other cylinder (11)."

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 19, 20, 21, 22, 23, 25, 26, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellenc et al. (WO 01/87047 A1) in view of Praca (US Patent No. 3,712,034).**

Regarding claims 19 and 21, Pellenc et al. discloses the leaf-stripping device of claim 1 as set forth above. However, Pellenc et al. does not expressly disclose at least one cylinder having peripheral grooves, with a width and depth that corresponds roughly

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to the size of a fruit and, as a minimum, is made on the cylinder that is coupled to the drive motor.

Praca discloses a harvester "wherein at least one cylinder (Fig. 3, rolls 23 and 24) has peripheral grooves (41 and 42)." Since Praca shows that both the rolls (23 and 24) have peripheral grooves, it ensures that "...grooves are made in the at least one cylinder coupled to the drive motor." The advantage of having the peripheral grooves is that it allows for better airflow between the cylinders and the plant material.

Pellenc and Praca are analogous arts in that both are in the field of endeavor of harvesters; in particular, both inventions gather plant materials by way of rotatable cylinders.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the cylinders of Pellenc with cylinders similar to that of Praca since the presence of grooves allow for a better air flow between the cylinders and the plant material.

Regarding claim 20, since the applicant does not explicitly disclose the size of the fruit, the examiner views that the width and depth of the grooves (41 and 42) on the cylinders ("rolls" 23 and 24) of Praca can easily correspond "roughly" to the size of a fruit and is thus considered to meet the limitation of claim 20.

Regarding claim 22, Praca further discloses the leaf-stripping device of claim 1 "wherein the driven cylinder is made from a plastic with a poorly wettable surface" (Col. 3, lines 53-59: "The end portions of the two rolls... are of non-deformable material...plastic"). The examiner views that the plastic of Praca meets the broad

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limitation of “a poorly wettable surface” since plastic, in general, do not readily absorb liquid.

Regarding claim 23, Praca discloses a harvester “wherein one of the cylinders is not coupled to the motor and is spring-loaded against the other of the cylinders” (Col. 3, lines 20-28; “shaft 21 [of roll 23] … subjected to the action of springs… in order that the two rolls should be forcibly applied against each other”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the leaf-stripping device of Pellenc with spring-loaded cylinders similar to that of Praca in order to produce sufficient pressure between the two cylinders to allow for a firmer hold on the plant material, as well as, to produce sufficient friction between the two cylinders causing both to rotate simultaneously in opposite direction.

Regarding claims 25 and 26, if one were to substitute the rolls of Praca as suggested in the rejection of claims 19 and 21 above, it would inherently meet the limitation “the cylinder that is not coupled to the motor vehicle includes an elastic peripheral surface” (claim 25) and “…a peripheral surface of the cylinder that is not coupled to the motor includes an elastomer” (claim 26) (Col. 3, lines 45-52 “central portion 38 … formed of resilient material such as, for example, rubber”).

Regarding claim 29, Pellenc et al. discloses the harvester claimed above, except for the limitation “wherein a diameter of the cylinder that is not coupled to the motor (non-driven) is made smaller than the diameter of the other cylinder (driven).” It would have been obvious matter of design choice to modify the device of Pellenc et al. by

having the diameter of the non-driven cylinder be smaller than the driven cylinder since applicant has not disclosed that having different diameters solves any stated problem and it appears that both cylinders would perform equally well with the diameter of the non-driven cylinder being bigger than or similar to the driven cylinder, as further supported by Pellenc et al., who discloses on Page 22, line 19 that both drums can have identical or different diameters.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joan D. Misa whose telephone number is (571) 270-3745. The examiner can normally be reached on Monday - Friday, 8:00am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson
Supervisory Patent Examiner
Art Unit 4155

JM
10/29/07